

## WHAT IS CLAIMED IS:

1. A transmission filter comprising an first shell having an inlet opening, a second shell having an outlet opening; said first and second shells mating with each other to form a filter housing, a fluid pervious centertube disposed in the filter housing between the first and second shells such that the inlet opening communicates with the interior of the centertube, at least one set of registering weld posts on interior surfaces of said first and second shells, and a filter medium clamped between the first and second shells and the centertube to form a filter surrounding the centertube through which fluid moving from the inlet opening to the outlet opening must pass.
2. A transmission filter according to claim 1, wherein the filter material is clamped between the first shell and the center tube, between the second shell and the centertube, and between the first and second shells to form a bag filter surrounding the centertube.
3. A transmission filter according to claim 1, wherein the center tube has a mesh structure.
4. A transmission filter according to claim 1, wherein the first and second shells and the centertube are made of a thermoplastic synthetic resin material.
5. A transmission filter according to claim 4, wherein said synthetic resin material is a thermoplastic polyamide material.
6. A transmission filter according to claim 4, wherein said synthetic resin material is reinforced with glass fibers.
7. A transmission filter according to claim 4, wherein said synthetic resin material is PA66GF33.

8. A transmission filter according to claim 1, wherein said first and second shells and said centertube are vibration welded together with said filter material between them in a single welding operation.

9. A method of making a filter comprising:

- providing mateable first and second synthetic resin shells with respective inlet and outlet openings, said shells having at least one set of registering weld posts on inside surfaces thereof;
- disposing a central portion of a filter web against an inside surface of one of said shells;
- disposing a fluid pervious centertube against said central portion of said filter web to clamp said filter web against said one shell;
- wrapping said filter web around said centertube to form a filter bag;
- mating the other of said shells with said one shell with the weld posts on their inside surfaces registering to form a filter housing, whereby a peripheral portion of said filter material is clamped between said centertube and said other shell; and
- welding the first and second shells and the centertube together in a single welding step with the filter bag clamped between them such that fluid moving from the inlet opening to the outlet opening must pass through the filter bag.

10. A method according to claim 9, wherein alignment apertures in the filter material are placed over the weld posts when the filter material is placed in the first shell to assure proper positioning of the resulting filter bag.

11. A method according to claim 9, wherein said centertube has a mesh structure.

12. A method according to claim 9, wherein said first and second shells and said center tube are made of injection molded thermoplastic synthetic resin material.

13. A method according to claim 12, wherein said synthetic resin material is a glass fiber reinforced polyamide material.